#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-018668 Address: 333 Burma Road **Date Inspected:** 29-Nov-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 1500 **Project Name:** SAS Superstructure **OSM Departure Time:** 300 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** ShangHai, China

**CWI Name:** Tian Lei **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** OBG

### **Summary of Items Observed:**

Summary of Items Observed: On this date Caltrans OSM Quality Assurance(QA) Inspector, DJ Shin was present during the times noted above for observations relative to the work being performed.

Bay 2

This QA Inspector observed the following work in progress for Bay 2.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Xiang Feng Feng.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specifications (WPS). Listed below are the locations that were identified by this QA inspector.

Components: Floor Beam PCMK: FB3343-001-064

Welder: 066239 Report: B-WR 17668

WPS-345-FCAW-2G (2F)-ESAB-Repair

PCMK: FB3343-001-128

Welder: 067942 Report: B-WR 17667

WPS-345-FCAW-2G (2F)-ESAB-Repair

# WELDING INSPECTION REPORT

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Components: Grillage Assembly

PCMK: SA7512-001-060

Welder: 066674 Report: B-WR 17668

WPS-345-FCAW-3G (3F)-ESAB-Repair-FCM

Components: Longitudinal Diaphragm

PCMK: LD3049-001-033

Welder: 045276

WPS-B-T-2233-ESAB

Heat straightening of PCMK, SA3446-001, under approved Heat Straightening procedure, HSR 1(B)-9874, SA3049-001, under approved Heat Straightening procedure, HSR1(B)-9795, The in process temperature was at the time of this observation witnessed at less than 600°C. The ZPMC QC was identified as Xiang Feng Feng. The approved HSR procedure stated that a maximum temperature of 650°C with 1-3 applications. The distortion that was previously measured and recorded on the HSR was Maximum 8mm and 10mm.

#### Bay 3

Heat straightening of PCMK, SA8009-001, under approved Heat Straightening procedure, HSR 1(B)-9903, The in process temperature was at the time of this observation witnessed at less than 600°C. The ZPMC QC was identified as Zhen Hai Feng. The approved HSR procedure stated that a maximum temperature of 650°C with 1-3 applications. The distortion that was previously measured and recorded on the HSR was Maximum 30~60mm.

#### Bay 7

This QA Inspector observed the following work in progress for Bay 7.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Whang Min.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specifications (WPS). Listed below are the locations that were identified by this QA inspector.

Components: Deck Plate PCMK: DP3179-2-001-030

Welder: 217185

WPS-B-T-2232-TC-U4b-F

Components: Floor Beam PCMK: FB3245-002-037

Welder: 057795

WPS-B-P-2212-B-U2-FCM

PCMK: FB3246-002-037

Welder: 057753

WPS-B-P-2212-B-U2-FCM

# WELDING INSPECTION REPORT

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This QA Inspector observed the following work in progress for Bay 7.

ZPMC was using the Shield Metal Welding (FCAW) process.

ZPMC QC is identified as Whang Min.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specifications (WPS). Listed below are the locations that were identified by this QA inspector.

Components: Cross Beam

PCMK: CB3003K-002-001,002,003,004

Welder: 057795

WPS-B-P-2214-B-U2-FCM

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





#### **Summary of Conversations:**

No relevant conversations

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Shin,DJ	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer